

Sequence Listing

Sequence Listing

5 <110> Chen, Jian
 Filvaroff, Ellen
 Goddard, Audrey
 Gurney, Austin
 Li, Hanzhong
 Wood, William I.

10 <120> IL-17 HOMOLOGOUS POLYPEPTIDES AND THERAPEUTIC USES
 THEREOF

15 <130> P1381-R1

<141> 1999-05-14

<150> US 60/085,579
 <151> 1998-05-15

20 <150> US 60/113,621
 <151> 1998-12-23

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 <213> Homo sapiens

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 20 25 30

Gly Gln Gly Arg Pro Gly Pro Leu Ala Pro Gly Pro His Gln Val
 35 40 45

40 Pro Leu Asp Leu Val Ser Arg Met Lys Pro Tyr Ala Arg Met Glu
 50 55 60

45 Glu Tyr Glu Arg Asn Ile Glu Glu Met Val Ala Gln Leu Arg Asn
 65 70 75

Ser Ser Glu Leu Ala Gln Arg Lys Cys Glu Val Asn Leu Gln Leu
 80 85 90

Trp Met Ser Asn Lys Arg Ser Leu Ser Pro Trp Gly Tyr Ser Ile
 95 100 105

5 Asn His Asp Pro Ser Arg Ile Pro Val Asp Leu Pro Glu Ala Arg
 110 115 120

Cys Leu Cys Leu Gly Cys Val Asn Pro Phe Thr Met Gln Glu Asp
 125 130 135

10 Arg Ser Met Val Ser Val Pro Val Phe Ser Gln Val Pro Val Arg
 140 145 150

Arg Arg Leu Cys Pro Pro Pro Pro Arg Thr Gly Pro Cys Arg Gln
 15 155 160 165

Arg Ala Val Met Glu Thr Ile Ala Val Gly Cys Thr Cys Ile Phe
 170 175 180

20 <210> 2
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 ccctggcccc tggccctcac caggtgccac tggacctggt gtcacggatg 200

35 aaaccgtatg cccgcatgga ggagtatgag aggaacatcg aggagatggt 250
 ggcccagctg aggaacagct cagagctggc ccagagaaag tgtgagggtca 300

 acttgcagct gtggatgtcc aacaagagga gcctgtctcc ctggggctac 350

40 agcatcaacc acgaccccag ccgtatcccc gtggacctgc cggaggcacg 400
 gtgcctgtgt ctgggctgtg tgaaccctt caccatgcag gaggaccgca 450

 gcatgggtgag cgtgccggtg ttcagccagg ttctgtgcg ccgccgcctc 500

45 tgcccgccac cgcccgcac agggccttgc cgccagcgcg cagtcatgga 550
 gaccatcgct gtgggctgca cctgcatctt ctgaatcacc tggcccagaa 600

gccaggccag cagcccgaga ccatactcct tgcacctttg tgccaagaaa 650

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<213> Homo sapiens

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Cys	Leu	Ala	His	His	Asp	Pro	Ser	Leu	Arg	Gly	His	Pro	His	Ser
				20					25					30

20

His	Gly	Thr	Pro	His	Cys	Tyr	Ser	Ala	Glu	Glu	Leu	Pro	Leu	Gly
				35					40					45

Gln	Ala	Pro	Pro	His	Leu	Leu	Ala	Arg	Gly	Ala	Lys	Trp	Gly	Gln
				50					55					60

25

Ala	Leu	Pro	Val	Ala	Leu	Val	Ser	Ser	Leu	Glu	Ala	Ala	Ser	His
				65					70					75

Arg	Gly	Arg	His	Glu	Arg	Pro	Ser	Ala	Thr	Thr	Gln	Cys	Pro	Val
				80					85					90

30

Leu	Arg	Pro	Glu	Glu	Val	Leu	Glu	Ala	Asp	Thr	His	Gln	Arg	Ser
				95					100					105

Ile	Ser	Pro	Trp	Arg	Tyr	Arg	Val	Asp	Thr	Asp	Glu	Asp	Arg	Tyr
				110					115					120

35

Pro	Gln	Lys	Leu	Ala	Phe	Ala	Glu	Cys	Leu	Cys	Arg	Gly	Cys	Ile
				125					130					135

40

Asp	Ala	Arg	Thr	Gly	Arg	Glu	Thr	Ala	Ala	Leu	Asn	Ser	Val	Arg
				140					145					150

Leu	Leu	Gln	Ser	Leu	Leu	Val	Leu	Arg	Arg	Arg	Pro	Cys	Ser	Arg
				155					160					165

45

Asp	Gly	Ser	Gly	Leu	Pro	Thr	Pro	Gly	Ala	Phe	Ala	Phe	His	Thr
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Glu Phe Ile His Val Pro Val Gly Cys Thr Cys Val Leu Pro Arg
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Ser Val
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10 <213> Homo sapiens

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 gccaccatg acccctccct cagggggcac cccacagtc acggtacccc 150
 20 aactgctac tcggctgagg aactgcccct cggccaggcc cccccacacc 200
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 cccaccagcg ctccatctca ccctggagat accgtgtgga cacggatgag 400
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 tgetccagag cctgctgggtg ctgcgccgcc ggccttgctc ccgcgacggc 550
 35 tcggggctcc ccacacctgg ggcctttgcc ttccacaccg agttcatcca 600
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 40 tatttatgtg tatttattgt tatttatatg cctcccccaa cactaccctt 750
 ggggtctggg cattccccgt gtctggagga cagccccca ctgttctcct 800
 45 catctccagc ctcagtagtt gggggtagaa ggagctcagc acctcttcca 850
 gcccttaaag ctgcagaaaa ggtgtcacac ggctgcctgt accttggtc 900

cctgtcctgc tcccggcttc ccttacccta tcaactggcct caggccccgc 950
 aggtgcctc ttcccaacct ccttgggaagt acccctgttt cttaaacaat 1000
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 20 cctgggttctt gctccttggg actctgggac ttacaccagt ggcacccctg 100
 gctcnnnnnn nnnnnaattc ggtacgaggc tgggggttcag gcgggcagca 150
 gctgcaggct gaccttgcag cttggcgga tggactggcc tcacaacctg 200
 25 ctgtttcttc ttaccatttc catcttcctg gggctgggccc agcccaggag 250
 cccaaaagc aagaggaagg ggcaagggcg gcctgggccc ctggtccttg 300
 30 gccctacca ggtgccactg gacctggtgt cacggatgaa accgtatgcc 350
 cgcattggagg agtatgagag gaacatcgag gagatggttg cccagctgag 400
 gaacagttca gagctggccc agagaaagtg tgaggtcaac ttgcagctgt 450
 35 ggatgtccaa caagaggagc ctgtctccct ggggctacag catcaaccac 500
 gacccagacc gtatccccgt ggacctccg aggcacggtg cctgtgtctg 550
 ggcttgtgtg aacccttca ccatgcagga ggaccgcagc atggtgagcg 600
 tgccggtgtt cagccaggtt cctgtgcgcc gccgctctg cccgccaccg 650
 cccgcacag ggccttgccg ccagcgcgca gtcattggaga ccatcgctgt 700
 45 gggctgcacc tgcattctct gaatcgacct ggcccagaag ccaggccagc 750
 agcccagagac catctcctt gcacctttgt gccaaagaag gcctatgaaa 800

agtaaact gacttttgaa agcaaaaaaa 830

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ctcacaacct gctgtttctt cttaccattt ccatcttcct ggggctgggc 100

20 agccaggagc cccaaaagca agaggaagg gcaagggcgg cctgggccc 150

tggcctggcc tcaccaggtg ccactggacc tgggtgcacg gatgaaaccg 200

tatgcccgc tggaggagta tgagaggaac atcgaggaga tgggtggcca 250

25 gctgaggaac agctcanaag ctggcccaga gaaagtgtga ggtcaacttg 300

cagctgtgga tgtccaacaa gaaggagcct gtctcccttg gggctacaag 350

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<212> DNA

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gcagaggctg tatcgatgca cggacgggcc gcgagacagc tgcgctcaac 100

40

tccgtgcggc tgctccagag cctgctgggtg ctgcgccgcc ggccttgctc 150

ccgcgacggc tcggggctcc ccacacctgg ggcctttgcc ttccacaccg 200

45 agttcatcca cgtccccgtc ggctgcacct 230

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<211> 24

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<400> 8

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<210> 9

<211> 24

<212> DNA

10 <213> Artificial sequence

<400> 9

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<211> 155

25 <212> PRT

<213> Human

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30 Met Thr Pro Gly Lys Thr Ser Leu Val Ser Leu Leu Leu Leu Leu
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Ser Leu Glu Ala Ile Val Lys Ala Gly Ile Thr Ile Pro Arg Asn
 20 25 30

35 Pro Gly Cys Pro Asn Ser Glu Asp Lys Asn Phe Pro Arg Thr Val
 35 40 45

Met Val Asn Leu Asn Ile His Asn Arg Asn Thr Asn Thr Asn Pro
 50 55 60

40 Lys Arg Ser Ser Asp Tyr Tyr Asn Arg Ser Thr Ser Pro Trp Asn
 65 70 75

45 Leu His Arg Asn Glu Asp Pro Glu Arg Tyr Pro Ser Val Ile Trp
 80 85 90

Glu Ala Lys Cys Arg His Leu Gly Cys Ile Asn Ala Asp Gly Asn
 95 100 105

Val Asp Tyr His Met Asn Ser Val Pro Ile Gln Gln Glu Ile Leu
 110 115 120

5 Val Leu Arg Arg Glu Pro Pro His Cys Pro Asn Ser Phe Arg Leu
 125 130 135

Glu Lys Ile Leu Val Ser Val Gly Cys Thr Cys Val Thr Pro Ile
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Val His His Val Ala
 155

<210> 12

15 <211> 408

<212> PRT

<213> Artificial

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20 <223> Artificial Sequence 1-408

<400> 12

Met Asp Trp Pro His Asn Leu Leu Phe Leu Leu Thr Ile Ser Ile
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Phe Leu Gly Leu Gly Gln Pro Arg Ser Pro Lys Ser Lys Arg Lys
 20 25 30

30

Gly Gln Gly Arg Pro Gly Pro Leu Ala Pro Gly Pro His Gln Val
 35 40 45

Pro Leu Asp Leu Val Ser Arg Met Lys Pro Tyr Ala Arg Met Glu
 50 55 60

35

Glu Tyr Glu Arg Asn Ile Glu Glu Met Val Ala Gln Leu Arg Asn
 65 70 75

Ser Ser Glu Leu Ala Gln Arg Lys Cys Glu Val Asn Leu Gln Leu
 80 85 90

40

Trp Met Ser Asn Lys Arg Ser Leu Ser Pro Trp Gly Tyr Ser Ile
 95 100 105

45

Asn His Asp Pro Ser Arg Ile Pro Val Asp Leu Pro Glu Ala Arg
 110 115 120

Cys Leu Cys Leu Gly Cys Val Asn Pro Phe Thr Met Gln Glu Asp
 125 130 135

Arg Ser Met Val Ser Val Pro Val Phe Ser Gln Val Pro Val Arg
140 145 150

5 Arg Arg Leu Cys Pro Pro Pro Pro Arg Thr Gly Pro Cys Arg Gln
155 160 165

Arg Ala Val Met Glu Thr Ile Ala Val Gly Cys Thr Cys Ile Phe
170 175 180

10 Pro Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
185 190 195

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
15 200 205 210

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
215 220 225

20 Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
230 235 240

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
245 250 255

25 Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
260 265 270

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
30 275 280 285

Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
290 295 300

35 Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser
305 310 315

Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val
320 325 330

40 Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
335 340 345

Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp
45 350 355 360 365

Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys
365 370 375

Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
 380 385 390

5 Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
 395 400 405

Pro Gly Lys
 408

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<210> 13

<211> 425

<212> PRT

<213> Artificial

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Cys Leu Ala His His Asp Pro Ser Leu Arg Gly His Pro His Ser
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His Gly Thr Pro His Cys Tyr Ser Ala Glu Glu Leu Pro Leu Gly
 35 40 45

30 Gln Ala Pro Pro His Leu Leu Ala Arg Gly Ala Lys Trp Gly Gln
 50 55 60

Ala Leu Pro Val Ala Leu Val Ser Ser Leu Glu Ala Ala Ser His
 65 70 75

35 Arg Gly Arg His Glu Arg Pro Ser Ala Thr Thr Gln Cys Pro Val
 80 85 90

Leu Arg Pro Glu Glu Val Leu Glu Ala Asp Thr His Gln Arg Ser
 95 100 105

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Ile Ser Pro Trp Arg Tyr Arg Val Asp Thr Asp Glu Asp Arg Tyr
 110 115 120

45 Pro Gln Lys Leu Ala Phe Ala Glu Cys Leu Cys Arg Gly Cys Ile
 125 130 135

Asp Ala Arg Thr Gly Arg Glu Thr Ala Ala Leu Asn Ser Val Arg
 140 145 150

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
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 5 Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
 410 415 420
 Leu Ser Pro Gly Lys
 425
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 <213> Homo sapiens
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 20 25 30
 Pro Pro Gly Glu Asp Ser Lys Asp Val Ala Ala Pro His Arg Gln
 35 40 45
 25 Pro Leu Thr Ser Ser Glu Arg Ile Asp Lys Gln Ile Arg Tyr Ile
 50 55 60
 Leu Asp Gly Ile Ser Ala Leu Arg Lys Glu Thr Cys Asn Lys Ser
 30 65 70 75
 Asn Met Cys Glu Ser Ser Lys Glu Ala Leu Ala Glu Asn Asn Leu
 80 85 90
 35 Asn Leu Pro Lys Met Ala Glu Lys Asp Gly Cys Phe Gln Ser Gly
 95 100 105
 Phe Asn Glu Glu Thr Cys Leu Val Lys Ile Ile Thr Gly Leu Leu
 110 115 120
 40 Glu Phe Glu Val Tyr Leu Glu Tyr Leu Gln Asn Arg Phe Glu Ser
 125 130 135
 Ser Glu Glu Gln Ala Arg Ala Val Gln Met Ser Thr Lys Val Leu
 45 140 145 150
 Ile Gln Phe Leu Gln Lys Lys Ala Lys Asn Leu Asp Ala Ile Thr
 155 160 165

Thr Pro Asp Pro Thr Thr Asn Ala Ser Leu Leu Thr Lys Leu Gln
 170 175 180
 5 Ala Gln Asn Gln Trp Leu Gln Asp Met Thr Thr His Leu Ile Leu
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 Arg Ser Phe Lys Glu Phe Leu Gln Ser Ser Leu Arg Ala Leu Arg
 200 205 210
 10 Gln Met
 212
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 15 <211> 320
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 20 25 30
 25 Ala Ser Leu Arg Leu Leu Asp His Arg Ala Leu Val Cys Ser Gln
 35 40 45
 Pro Gly Leu Asn Cys Thr Val Lys Asn Ser Thr Cys Leu Asp Asp
 30 50 55 60
 Ser Trp Ile His Pro Arg Asn Leu Thr Pro Ser Ser Pro Lys Asp
 65 70 75
 35 Leu Gln Ile Gln Leu His Phe Ala His Thr Gln Gln Gly Asp Leu
 80 85 90
 Phe Pro Val Ala His Ile Glu Trp Thr Leu Gln Thr Asp Ala Ser
 95 100 105
 40 Ile Leu Tyr Leu Glu Gly Ala Glu Leu Ser Val Leu Gln Leu Asn
 110 115 120
 Thr Asn Glu Arg Leu Cys Val Arg Phe Glu Phe Leu Ser Lys Leu
 45 125 130 135
 Arg His His His Arg Arg Trp Arg Phe Thr Phe Ser His Phe Val
 140 145 150

Val Asp Pro Asp Gln Glu Tyr Glu Val Thr Val His His Leu Pro
 155 160 165
 5 Lys Pro Ile Pro Asp Gly Asp Pro Asn His Gln Ser Lys Asn Phe
 170 175 180
 Leu Val Pro Asp Cys Glu His Ala Arg Met Lys Val Thr Thr Pro
 185 190 195
 10 Cys Met Ser Ser Gly Ser Leu Trp Asp Pro Asn Ile Thr Val Glu
 200 205 210
 Thr Leu Glu Ala His Gln Leu Arg Val Ser Phe Thr Leu Trp Asn
 215 220 225
 Glu Ser Thr His Tyr Gln Ile Leu Leu Thr Ser Phe Pro His Met
 230 235 240
 20 Glu Asn His Ser Cys Phe Glu His Met His His Ile Pro Ala Pro
 245 250 255
 Arg Pro Glu Glu Phe His Gln Arg Ser Asn Val Thr Leu Thr Leu
 260 265 270
 25 Arg Asn Leu Lys Gly Cys Cys Arg His Gln Val Gln Ile Gln Pro
 275 280 285
 Phe Phe Ser Ser Cys Leu Asn Asp Cys Leu Arg His Ser Ala Thr
 290 295 300
 30 Val Ser Cys Pro Glu Met Pro Asp Thr Pro Glu Pro Ile Pro Asp
 305 310 315
 35 Tyr Met Pro Leu Trp
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<210> 16

<211> 543

40 <212> DNA

<213> Homo sapiens

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ggcctgggcc cctggcccct ggccctcacc aggtgccact ggacctggtg 150

tcacggatga aaccgtatgc ccgcatggag gagtatgaga ggaacatcga 200
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 10 ggaggcacgg tgcctgtgtc tgggctgtgt gaacccttc accatgcagg 400
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 15 agtcatggag accatcgtc tgggctgcac ctgcatcttc tga 543

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 cacactgcta ctcggtgag gaactgcccc tcggccaggc cccccacac 150
 30 ctgctggctc gaggtgccaa gtgggggag gctttgcctg tagccctggt 200
 gtccagcctg gaggcagcaa gccacagggg gaggcacgag aggcctcag 250
 ctacgacca gtgcccgggtg ctgcgggcgg aggaggtgtt ggaggcagac 300
 35 acccaccagc gctccatctc accctggaga taccgtgtgg acacggatga 350
 ggaccgctat ccacagaagc tggccttcgc cgagtgcctg tgcagaggct 400
 40 gtatcgatgc acggacgggc cgcgagacag ctgcgctcaa ctccgtgcgg 450
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155 157

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 <220>
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 25 tgtagtcc 58

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 30 <213> Homo sapiens

 <400> 22
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 20 25 30
 Ala Ser Leu Arg Leu Leu Asp His Arg Ala Leu Val Cys Ser Gln
 40 35 40 45
 Pro Gly Leu Asn Cys Thr Val Lys Asn Ser Thr Cys Leu Asp Asp
 50 55 60
 45 Ser Trp Ile His Pro Arg Asn Leu Thr Pro Ser Ser Pro Lys Asp
 65 70 75

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					80					85					90	
5	Phe	Pro	Val	Ala	His	Ile	Glu	Trp	Thr	Leu	Gln	Thr	Asp	Ala	Ser	
					95					100					105	
	Ile	Leu	Tyr	Leu	Glu	Gly	Ala	Glu	Leu	Ser	Val	Leu	Gln	Leu	Asn	
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10	Thr	Asn	Glu	Arg	Leu	Cys	Val	Arg	Phe	Glu	Phe	Leu	Ser	Lys	Leu	
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	Arg	His	His	His	Arg	Arg	Trp	Arg	Phe	Thr	Phe	Ser	His	Phe	Val	
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15	Val	Asp	Pro	Asp	Gln	Glu	Tyr	Glu	Val	Thr	Val	His	His	Leu	Pro	
					155					160					165	
20	Lys	Pro	Ile	Pro	Asp	Gly	Asp	Pro	Asn	His	Gln	Ser	Lys	Asn	Phe	
					170					175					180	
	Leu	Val	Pro	Asp	Cys	Glu	His	Ala	Arg	Met	Lys	Val	Thr	Thr	Pro	
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25	Cys	Met	Ser	Ser	Gly	Ser	Leu	Trp	Asp	Pro	Asn	Ile	Thr	Val	Glu	
					200					205					210	
	Thr	Leu	Glu	Ala	His	Gln	Leu	Arg	Val	Ser	Phe	Thr	Leu	Trp	Asn	
					215					220					225	
30	Glu	Ser	Thr	His	Tyr	Gln	Ile	Leu	Leu	Thr	Ser	Phe	Pro	His	Met	
					230					235					240	
	Glu	Asn	His	Ser	Cys	Phe	Glu	His	Met	His	His	Ile	Pro	Ala	Pro	
35					245					250					255	
	Arg	Pro	Glu	Glu	Phe	His	Gln	Arg	Ser	Asn	Val	Thr	Leu	Thr	Leu	
					260					265					270	
40	Arg	Asn	Leu	Lys	Gly	Cys	Cys	Arg	His	Gln	Val	Gln	Ile	Gln	Pro	
					275					280					285	
	Phe	Phe	Ser	Ser	Cys	Leu	Asn	Asp	Cys	Leu	Arg	His	Ser	Ala	Thr	
					290					295					300	
45	Val	Ser	Cys	Pro	Glu	Met	Pro	Asp	Thr	Pro	Glu	Pro	Ile	Pro	Asp	
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10 <223> Artificial sequence 1-175

Ile Phe Leu Gly Leu Gly Gln Pro Arg Ser Pro Lys Ser Lys Arg
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15 Lys Gly Gln Gly Arg Pro Gly Pro Leu Ala Pro Gly Pro His Gln
20 25 30

Val Pro Leu Asp Leu Val Ser Arg Met Lys Pro Tyr Ala Arg Met
20 35 40 45

Glu Glu Tyr Glu Arg Asn Ile Glu Glu Met Val Ala Gln Leu Arg
50 55 60

25 Asn Ser Ser Glu Leu Ala Gln Arg Lys Cys Glu Val Asn Leu Gln
 65 70 75

Leu Trp Met Ser Asn Lys Arg Ser Leu Ser Pro Trp Gly Tyr Ser
80 85 90

Ile Asn His Asp Pro Ser Arg Ile Pro Val Asp Leu Pro Glu Ala
95 100 105

35 Arg Cys Leu Cys Leu Gly Cys Val Asn Pro Phe Thr Met Gln Glu
110 115 120

Asp	Arg	Ser	Met	Val	Ser	Val	Pro	Val	Phe	Ser	Gln	Val	Pro	Val
				125					130					135

40 Arg Arg Arg Leu Cys Pro Pro Pro Pro Arg Thr Gly Pro Cys Arg
 140 145 150

Gln Arg Ala Val Met Glu Thr Ile Ala Val Gly Cys Thr Cys Ile
155 160 165

45 Phe Gly His His His His His His His His
170 175

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 <211> 206
 <212> PRT
 <213> Artificial

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<220>
 <223> Artificial sequence 1-206

<400> 24

10	Met Thr Leu Leu Pro Gly Leu Leu Phe Leu Thr Trp Leu His Thr	1	5	10	15
	Cys Leu Ala His His Asp Pro Ser Leu Arg Gly His Pro His Ser	20	25	30	
15	His Gly Thr Pro His Cys Tyr Ser Ala Glu Glu Leu Pro Leu Gly	35	40	45	
	Gln Ala Pro Pro His Leu Leu Ala Arg Gly Ala Lys Trp Gly Gln	50	55	60	
20	Ala Leu Pro Val Ala Leu Val Ser Ser Leu Glu Ala Ala Ser His	65	70	75	
	Arg Gly Arg His Glu Arg Pro Ser Ala Thr Thr Gln Cys Pro Val	80	85	90	
	Leu Arg Pro Glu Glu Val Leu Glu Ala Asp Thr His Gln Arg Ser	95	100	105	
30	Ile Ser Pro Trp Arg Tyr Arg Val Asp Thr Asp Glu Asp Arg Tyr	110	115	120	
	Pro Gln Lys Leu Ala Phe Ala Glu Cys Leu Cys Arg Gly Cys Ile	125	130	135	
35	Asp Ala Arg Thr Gly Arg Glu Thr Ala Ala Leu Asn Ser Val Arg	140	145	150	
	Leu Leu Gln Ser Leu Leu Val Leu Arg Arg Arg Pro Cys Ser Arg	155	160	165	
	Asp Gly Ser Gly Leu Pro Thr Pro Gly Ala Phe Ala Phe His Thr	170	175	180	
45	Glu Phe Ile His Val Pro Val Gly Cys Thr Cys Val Leu Pro Arg	185	190	195	

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5  <210> 25
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    <212> PRT
    <213> Homo sapiens

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10  Met Ala Lys Val Pro Asp Met Phe Glu Asp Leu Lys Asn Cys Tyr
    1          5          10          15

    Ser Glu Asn Glu Glu Asp Ser Ser Ser Ile Asp His Leu Ser Leu
          20          25          30

15  Asn Gln Lys Ser Phe Tyr His Val Ser Tyr Gly Pro Leu His Glu
          35          40          45

    Gly Cys Met Asp Gln Ser Val Ser Leu Ser Ile Ser Glu Thr Ser
    20          50          55          60

    Lys Thr Ser Lys Leu Thr Phe Lys Glu Ser Met Val Val Val Ala
          65          70          75

25  Thr Asn Gly Lys Val Leu Lys Lys Arg Arg Leu Ser Leu Ser Gln
          80          85          90

    Ser Ile Thr Asp Asp Asp Leu Glu Ala Ile Ala Asn Asp Ser Glu
          95          100          105

30  Glu Glu Ile Ile Lys Pro Arg Ser Ala Pro Phe Ser Phe Leu Ser
          110          115          120

    Asn Val Lys Tyr Asn Phe Met Arg Ile Ile Lys Tyr Glu Phe Ile
    35          125          130          135

    Leu Asn Asp Ala Leu Asn Gln Ser Ile Ile Arg Ala Asn Asp Gln
          140          145          150

40  Tyr Leu Thr Ala Ala Ala Leu His Asn Leu Asp Glu Ala Val Lys
          155          160          165

    Phe Asp Met Gly Ala Tyr Lys Ser Ser Lys Asp Asp Ala Lys Ile
          170          175          180

45  Thr Val Ile Leu Arg Ile Ser Lys Thr Gln Leu Tyr Val Thr Ala
          185          190          195

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Gln Asp Glu Asp Gln Pro Val Leu Leu Lys Glu Met Pro Glu Ile
 200 205 210
 Pro Lys Thr Ile Thr Gly Ser Glu Thr Asn Leu Leu Phe Phe Trp
 5 215 220 225
 Glu Thr His Gly Thr Lys Asn Tyr Phe Thr Ser Val Ala His Pro
 230 235 240
 10 Asn Leu Phe Ile Ala Thr Lys Gln Asp Tyr Trp Val Cys Leu Ala
 245 250 255
 Gly Gly Pro Pro Ser Ile Thr Asp Phe Gln Ile Leu Glu Asn Gln
 15 260 265 270
 Ala
 271
 <210> 26
 20 <211> 177
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 25 Met Glu Ile Cys Arg Gly Leu Arg Ser His Leu Ile Thr Leu Leu
 1 5 10 15
 Leu Phe Leu Phe His Ser Glu Thr Ile Cys Arg Pro Ser Gly Arg
 20 25 30
 30 Lys Ser Ser Lys Met Gln Ala Phe Arg Ile Trp Asp Val Asn Gln
 35 35 40 45
 Lys Thr Phe Tyr Leu Arg Asn Asn Gln Leu Val Ala Gly Tyr Leu
 35 50 55 60
 Gln Gly Pro Asn Val Asn Leu Glu Glu Lys Ile Asp Val Val Pro
 65 70 75
 40 Ile Glu Pro His Ala Leu Phe Leu Gly Ile His Gly Gly Lys Met
 80 85 90
 Cys Leu Ser Cys Val Lys Ser Gly Asp Glu Thr Arg Leu Gln Leu
 95 100 105
 45 Glu Ala Val Asn Ile Thr Asp Leu Ser Glu Asn Arg Lys Gln Asp
 110 115 120

Lys Arg Phe Ala Phe Ile Arg Ser Asp Ser Gly Pro Thr Thr Ser
125 130 135

5 Phe Glu Ser Ala Ala Cys Pro Gly Trp Phe Leu Cys Thr Ala Met
140 145 150

Glu Ala Asp Gln Pro Val Ser Leu Thr Asn Met Pro Asp Glu Gly
155 160 165

10 Val Met Val Thr Leu Phe Tyr Phe Gln Glu Asp Glu
170 175 177

FOOTNOTES: 0021500